

**I CLAIM:**

1. A disbursement tracking system, comprising:

5 a) an input for receiving input signals conveying data associated with a document a user desires to generate on an output device;

b) a processing unit coupled to said input, said processing unit operative to:

10 i) extract from said input signals document print information and device information;

ii) determine a status of the output device on a basis of the device information;

15 iii) generate an output signal on a basis of the document print information and the status of the output device;

c) an output coupled to said processing unit for releasing said output signal to the output device.

20 2. A disbursement tracking system as defined in claim 1, wherein, if the status of the output device requires cost allocation data, said processing unit is operative to:

a) retrieve from the user the cost allocation data;

b) attempt to validate the cost allocation data;

c) if the cost allocation data is validated, insert the validated cost allocation data into the output signal.

5 3. A disbursement tracking system as defined in claim 2, wherein said output signal is a print job file, said processing unit including a document analysis unit operative to spool the document print information extracted from said input signals into said print job file.

10 4. A disbursement tracking system as defined in claim 3, wherein said processing unit includes a device analysis unit operative to determine the status of the output device on a basis of the device information extracted from said input signals.

15 5. A disbursement tracking system as defined in claim 4, wherein said device information includes an identifier of the output device on which the document is to be generated.

20 6. A disbursement tracking system as defined in claim 5, wherein said device analysis unit includes a machine readable storage medium holding a data structure storing status information, said device analysis unit operative to consult said data structure on a basis of said identifier to determine the status information for the output device.

25 7. A disbursement tracking system as defined in claim 6, wherein said device analysis unit includes a user interface permitting the user to enter the cost allocation data.

8. A disbursement tracking system as defined in claim 7, wherein if the status information for the output device indicates that the output device requires cost allocation data, said device analysis unit is operative to initiate the user interface for collecting the cost allocation data from the user, said device analysis unit operative to attempt to validate the collected cost allocation data.
9. A disbursement tracking system as defined in claim 8, wherein if the collected cost allocation data is validated, said device analysis unit is operative to generate a first control signal including the cost allocation data.
10. A disbursement tracking system as defined in claim 8, wherein if the collected cost allocation data is invalid, said device analysis unit is operative to generate a second control signal, said document analysis unit responsive to said second control signal to discard said print job file.
11. A disbursement tracking system as defined in claim 9, wherein said document analysis unit is responsive to said first control signal for:
- a) extracting from said first control signal the cost allocation data;
  - b) modifying said print job file generated on a basis of the document print information by inserting the cost allocation data according to a predetermined format into said print job file, said print job file

including the cost allocation data being released from said output to the output device.

12. A disbursement tracking system as defined in claim 6, wherein if the status information for the output device indicates that the output device does not require cost allocation data, said device analysis unit is operative to generate a third control signal, said document analysis unit responsive to said third control signal for releasing said print job file generated on a basis of the document print information from said output without modification.

13. A disbursement tracking system as defined in claim 2, wherein the cost allocation data includes a user identification number and a file number.

14. A disbursement tracking system as defined in claim 1, wherein the output device is a digital printer/copier device.

15. A computer readable storage medium containing a program element for execution by a computing apparatus to implement a disbursement tracking system, said disbursement tracking system including:

a) an input for receiving input signals conveying data associated with a document a user desires to generate on an output device;

b) a processing unit coupled to said input, said processing unit operative to:

i) extract from said input signals document print information and device information;

- ii) determine a status of the output device on a basis of the device information;
- iii) generate an output signal on a basis of the document print information and the status of the output device;
- c) an output coupled to said processing unit for releasing said output signal to the output device.
16. A computer readable storage medium as defined in claim 15, wherein, if the status of the output device requires cost allocation data, said processing unit is operative to:
- a) retrieve from the user the cost allocation data;
- b) attempt to validate the cost allocation data;
- c) if the cost allocation data is validated, insert the validated cost allocation data into the output signal;
17. A computer readable storage medium as defined in claim 16, wherein said output signal is a print job file, said processing unit including a document analysis unit operative to spool the document print information extracted from said input signals into said print job file.
18. A computer readable storage medium as defined in claim 17, wherein said processing unit includes a device analysis unit operative to determine the status of the output device on a basis of the device information extracted from said input signals.

19. A computer readable storage medium as defined in claim 18, wherein said device information includes an identifier of the output device on which the document is to be generated.

5 20. A computer readable storage medium as defined in claim 19, wherein said device analysis unit includes a machine readable storage medium holding a data structure storing status information, said device analysis unit operative to consult said data structure on a basis of said identifier to determine the status information for the output device.

10 21. A computer readable storage medium as defined in claim 20, wherein said device analysis unit includes a user interface permitting the user to enter the cost allocation data.

15 22. A computer readable storage medium as defined in claim 21, wherein if the status information for the output device indicates that the output device requires cost allocation data, said device analysis unit is operative to initiate the user interface for collecting the cost allocation data from the user, said device analysis unit operative to attempt to validate the collected cost allocation data.

20 23. A computer readable storage medium as defined in claim 22, wherein if the collected cost allocation data is validated, said device analysis unit is operative to generate a first control signal including the cost allocation data.

25 24. A computer readable storage medium as defined in claim 22, wherein if the collected cost allocation data is invalid,

said device analysis unit is operative to generate a second control signal, said document analysis unit responsive to said second control signal to discard said print job file.

- 5 25. A computer readable storage medium as defined in claim 23, wherein said document analysis unit is responsive to said first control signal for:
- a) extracting from said first control signal the cost allocation data;
  - 10 b) modifying said print job file generated on a basis of the document print information by inserting the cost allocation data according to a predetermined format into said print job file, said print job file including the cost allocation data being released from said output to the output device.
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- 20 26. A computer readable storage medium as defined in claim 20, wherein if the status information for the output device indicates that the output device does not require cost allocation data, said device analysis unit is operative to generate a third control signal, said document analysis unit responsive to said third control signal for releasing said print job file generated on a basis of the document print information from said output without modification.
- 25 27. A computer readable storage medium as defined in claim 16, wherein the cost allocation data includes a user identification number and a file number.

28. ~~A computer readable storage medium as defined in claim 15,~~  
wherein the output device ~~is a digital printer/copier~~  
device.

29. A data processing device, comprising:

- 5 a) an input for receiving input signals containing data  
associated with a document a user desires to generate  
on an output device;
- 10 b) a redirector unit coupled to said input, said  
redirector unit operative to extract from said input  
signals document print information and device  
information;
- 15 c) a document analysis unit coupled to said redirector  
unit, said document analysis unit operative to  
generate an output signal on a basis of the document  
print information;
- 20 d) a device analysis unit coupled to said redirector  
unit, said device analysis unit operative to  
determine a status of the output device on a basis of  
the device information, if the status of the output  
device requires cost allocation data said device  
analysis unit being operative to:
- i) retrieve from the user the cost allocation data;
- ii) attempt to validate the cost allocation data;
- 25 iii) if the cost allocation data is validated,  
generate a control signal including the cost  
allocation data, said document analysis unit



being responsive to said control signal for inserting the validated cost allocation data into the output signal;

e) an output for releasing said output signal to the output device.

30. A data processing device as defined in claim 29, wherein said output signal is a print job file, said document analysis unit being operative to spool the document print information extracted from said input signals into said print job file.

31. A data processing device as defined in claim 30, wherein said device information includes an identifier of the output device on which the document is to be generated.

32. A data processing device as defined in claim 31, wherein said device analysis unit includes a machine readable storage medium holding a data structure storing status information, said device analysis unit operative to consult said data structure on a basis of said identifier to determine the status information for the output device.

33. A data processing device as defined in claim 32, wherein said device analysis unit includes a user interface permitting the user to enter the cost allocation data.

34. A data processing device as defined in claim 33, wherein if the status information for the output device indicates that the output device requires cost allocation data, said device analysis unit is operative to initiate the user interface for collecting the cost allocation data from the

user, said device analysis unit operative to attempt to validate the collected cost allocation data.

35. A data processing device as defined in claim 34, wherein if the collected cost allocation data is validated, said device analysis unit is operative to generate a first control signal including the cost allocation data.

36. A data processing device as defined in claim 34, wherein if the collected cost allocation data is invalid, said device analysis unit is operative to generate a second control signal, said document analysis unit responsive to said second control signal to discard said print job file.

37. A data processing device as defined in claim 35, wherein said document analysis unit is responsive to said first control signal for:

- a) extracting from said first control signal the cost allocation data;
- b) modifying said print job file generated on a basis of the document print information by inserting the cost allocation data according to a predetermined format into said print job file, said print job file including the cost allocation data being released from said output to the output device.

38. A data processing device as defined in claim 33, wherein if the status information for the output device indicates that the output device does not require cost allocation data, said device analysis unit is operative to generate a third control signal, said document analysis unit

responsive to said third control signal for releasing said print job file generated on a basis of the document print information from said output without modification.

39. A data processing device as defined in claim 29, wherein the cost allocation data includes a user identification number and a file number.
40. A data processing device as defined in claim 29, wherein the output device is a digital printer/copier device.
41. A method for validating and controlling the transmission of document print information from a document creation device to an output device on which costs are incurred, said method comprising:
- a) receiving input signals from the document creating device conveying data associated with a document a user desires to generate on the output device;
  - b) extracting from the input signals document print information and device information;
  - c) generating an output signal on a basis of the document print information;
  - d) determining a status of the output device on a basis of the device information, if the status of the output device requires cost allocation data:
    - i) retrieving from the user the cost allocation data;
    - ii) attempting to validate the cost allocation data;

iii) if the cost allocation data is validated, modifying the output signal by inserting the validated cost allocation data into the output signal;

5 e) releasing the output signal to the output device.

42. A method as defined in claim 41, wherein if the status of the output device does not require cost allocation data, said method comprising the step of releasing the output signal generated on a basis of the document print information from the output without modification.

43. A method as defined in claim 42, wherein the output signal is a print job file, said method comprising spooling the document print information extracted from the input signals into said print job file.

15 44. A method as defined in claim 41, wherein the cost allocation data includes a user identification number and a file number.

45. A method as defined in claim 41, wherein the output device is a digital printer/copier device.

20 46. A disbursement tracking system, comprising:

a) input means for receiving input signals conveying data associated with a document a user desires to generate on an output device;

b) processing means coupled to said input means, said processing means operative to:

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